

UNITED STATES DEPARTMENT OF THE INTERIOR  
NATIONAL PARK SERVICE

**NATIONAL REGISTER OF HISTORIC PLACES  
INVENTORY -- NOMINATION FORM**

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY  
RECEIVED JUN 17 1980  
DATE ENTERED OCT 22 1981

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*  
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

**1 NAME**

HISTORIC

The Lighthouse System of Puerto Rico, 1846-1979.

AND/OR COMMON

Thematic Resources

**2 LOCATION**

STREET & NUMBER

CITY, TOWN

NOT FOR PUBLICATION  
CONGRESSIONAL DISTRICT

VICINITY OF

STATE

The Commonwealth of Puerto Rico

COUNTY

CODE

**3 CLASSIFICATION**

(v. individual entries for "Status" and "Accessible")

CATEGORY	OWNERSHIP	STATUS	PRESENT USE	
<input type="checkbox"/> DISTRICT	<input checked="" type="checkbox"/> PUBLIC	<input type="checkbox"/> OCCUPIED	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> MUSEUM
<input type="checkbox"/> BUILDING(S)	<input type="checkbox"/> PRIVATE	<input type="checkbox"/> UNOCCUPIED	<input type="checkbox"/> COMMERCIAL	<input type="checkbox"/> PARK
<input type="checkbox"/> STRUCTURE	<input type="checkbox"/> BOTH	<input type="checkbox"/> WORK IN PROGRESS	<input type="checkbox"/> EDUCATIONAL	<input type="checkbox"/> PRIVATE RESIDENCE
<input type="checkbox"/> SITE	<b>PUBLIC ACQUISITION</b>	<b>ACCESSIBLE</b>	<input type="checkbox"/> ENTERTAINMENT	<input type="checkbox"/> RELIGIOUS
<input type="checkbox"/> OBJECT	<input type="checkbox"/> IN PROCESS	<input type="checkbox"/> YES: RESTRICTED	<input type="checkbox"/> GOVERNMENT	<input type="checkbox"/> SCIENTIFIC
Thematic Group	<input type="checkbox"/> BEING CONSIDERED	<input type="checkbox"/> YES: UNRESTRICTED	<input type="checkbox"/> INDUSTRIAL	<input type="checkbox"/> TRANSPORTATION
		<input type="checkbox"/> NO	<input type="checkbox"/> MILITARY	<input type="checkbox"/> OTHER:

**4 AGENCY**

REGIONAL HEADQUARTERS: (if applicable)

United States Department of Commerce, U.S. Coast Guard.

STREET & NUMBER

CITY, TOWN

STATE

VICINITY OF

**5 LOCATION OF LEGAL DESCRIPTION** (v. Continuation Sheet)

COURTHOUSE,  
REGISTRY OF DEEDS, ETC.

United States Seventh Coast Guard District

STREET & NUMBER

51 SW 1st Avenue

CITY, TOWN

Miami

STATE

Florida

33130

**6 REPRESENTATION IN EXISTING SURVEYS**

TITLE

(v. individual entries)

DATE

FEDERAL STATE COUNTY LOCAL

DEPOSITORY FOR  
SURVEY RECORDS

CITY, TOWN

STATE

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Certified copies of legal descriptions of nominated areas could also be found at the United States Coast Guard San Juan Base (San Juan, Puerto Rico, Civil Engineer Section, Real Property Files)

**7 DESCRIPTION** (v. also individual entries)

<b>CONDITION</b>		<b>CHECK ONE</b>	<b>CHECK ONE</b>
<input type="checkbox"/> EXCELLENT	<input type="checkbox"/> DETERIORATED	<input type="checkbox"/> UNALTERED	<input type="checkbox"/> ORIGINAL SITE
<input type="checkbox"/> GOOD	<input type="checkbox"/> RUINS	<input type="checkbox"/> ALTERED	<input type="checkbox"/> MOVED      DATE _____
<input type="checkbox"/> FAIR	<input type="checkbox"/> UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

GENERAL DESCRIPTION: Nineteenth century socio-economic development in Puerto Rico was characterized by a dual process; one where commercial agriculture for exportation purposes (sugar, coffee, and tobacco) increasingly became the core of social production; and another, emerged as a result of the first that led to a growing dependency on the importation of basic and manufactured commodities and goods. As commercial agriculture expanded, it encroached upon these lands dedicated to subsistence crop production (plantain, sweet potato, corn, manioc, etc.). Thus, as the planter class produced more and more of so-called "after dinner crops", Puerto Rican economy generated less of those products which were already traditional dietary staples. However, there was a common element to both processes - trade; for Puerto Rico, an Island, it meant shipping. As the century elapsed, Puerto Rico became more dependent than ever before on international trade as a means of survival. Early in the 19th century, specifically between 1820 and 1840, the Spanish Colonial authorities were concerned with that reality; thus the construction of roads, channels, ports, telegraph lines, and lighthouses was the result of a rational and systematic plan to deal with the serious problem of poor transportation and communications means. Plans, descriptions, and justifications for the different projects clearly suggest a need for faster connections between towns and cities in the Island, and for safer conditions at sea and shore. These plan were fundamentally simple since they were geared to taking maximum advantage of basic elements provided by nature and of economic available resources.

One outstanding example of these designs took place between mid-1820's well into the 1860's. The Colonial Government planned and partially executed a master channel project to connect the fertile and productive Caguas Valley and environs to the northern section of the Island; from Luquillo to the east through Loiza, Trujillo and San Juan Bay, to the west up to Arecibo. The plan called for the connection of wetlands and natural channels, the reorientation of major rivers, and adjacent natural lagoons. The layout took advantage of differing levels in order to construct simple locks with materials gathered from mangroves and nearby sources. Only for extreme cases would iron and brick would be used for sluice gates. The crucial element in this design was that it was a direct response to agricultural production demands: to expediate and facilitate trade, particularly of sugar, molasses, and rum, between the producing areas and the exporting cities located in the northern shore. In other words, it was clear that communication was an instrument of profit maximization for the producers. (1)

It was no accident, then, that in 1840, the Colonial Public Works Office of the Harbor and Port Section, made a concise inventory of all ports of entry existing in the Island fitted for either coastal

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or deep water navigation. According to the report, there were two major ports in the north shore, San Juan and Arecibo. San Juan was the more important and safer while Arecibo was a good bay, yet poorly protected from "the north winds." Besides, there were six minor ports in the area. On the western section of the Island there were three important cities trading heavily in coffee, sugar, and cotton with foreign markets. These were Aguadilla, Mayaguez, and Cabo Rojo. There were also three minor ports in the region. The inventory states that the best and more numerous ports were found in the southern coast: Guánica, Ponce, Jobos (considered the best in the Island), and Guayama, plus several other minor small bays. The southern coast, according to the document, was a very active trading area, particularly in sugar exported to the United States. There were also four major ports in the eastern front: Humacao, Naguabo, Ensenada Honda, and Fajardo. The report stressed the politico-military importance of three ports: Aguadilla and Mayaguez facing the Mona Passage and Hispaniola; and Ensenada Honda, a military port facing Saint Thomas, the Lesser Antilles, Vieques Sound, and Virgin Passage. (2)

Other examples of similar activity took place during the early 1850's as a relatively modern railway plan was presented to the Colonial Government by a group of major sugar planters. The plan called for a line connecting the two port cities of San Juan and Arecibo, but it failed as a result of poor financing from both the public and private sectors of the economy. (3) Meanwhile, the Government was designing a project of its own: the construction of a network of roads, dirtroads, and trails to connect the major coastal trading cities with the smaller towns of the Island. (4)

All the plans and projects pointed towards the crucial problem of developing a systematic, efficient, profitable, and socially useful means of communication in Puerto Rico by mid-19th century. Uppermost in the minds of both the Colonial Government and the planter class was the protection of the ever increasing import and export trade. There was sufficient mounting evidence at the time that several ports were unsafe, outmoded, inadequate, and ill-protected; as for example, Arecibo, a major port for the exportation of sugar and tobacco to foreign markets. Between 1851 and 1858 approximately 15 ships had serious accidents at the port --actually several of them sank-- as a consequence of poor safety measures which made day and night sailing very hazardous. (5)

Under pressure from the planter class, the Government realized it had to protect, not only foreign trade, but also the highly profitable coastal trade which carried minor crops from towns and cities to other areas, and major crops and goods from producing areas to exporting

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cities.

These articulated and interdependent series of economic elements were clear in the minds of the Colonial authorities by early 1860's. In 1861, the Central Lighthouse Commission (Junta Central de Faros) issued a five point questionnaire aimed at collecting and systematizing the information necessary to develop a comprehensive "lighthouse plan." The information was to be compiled by the "sea-shore district inspectors" of Puerto Rico. (6)

According to the Commission, the establishment of a maritime lighthouse system was to depend on factors such as: the relationship between commerce and agriculture, or, as the inspectors were supposed to find, "the relationship between those areas and their respective hydrographic, geologic, atmospheric, and natural environments in order to facilitate the approach and free navigation" of their waters. The inspectors were instructed to consider the entire plan from an "economic and artistic point of view," that is, in terms of economic feasibility such as costs, materials, etc., and of structural and architectural unity. They also had to submit general estimates on maintenance and services.

The general background for both the 1840's survey and the 1860 to early 1880's master lighthouse development plan is found in the period between 1835 to 1845. At this time, the Trade Board of Puerto Rico proposed the construction of a "rotating lantern" atop San Felipe del Morro Castle at the entrance of San Juan Harbor. The recommendation was based on two facts: on the rapid increase of trade taking place in and out San Juan and on San Juan's increased importance as a port-of-entry for European vessels trading with the rest of the Caribbean islands. In early 1845 the Merchant Bulletin (Boletín Mercantil) advertised a bidding for the construction of a "great brick pedestal" to support the lantern. In November 1845, H.R. Dunham Co. of New York shipped to San Juan "one cast iron lighthouse" which was installed immediately. By the end of December the frigate "Habanero" tested the light's visibility from a location 18 miles into the Atlantic. It reported that the light "is of a very good quality." In January 1846, the Colonial Government officially announced that at the highest parapet of the Castle, 187 feet above sea level (18° 20' N - 59° 48' 50" W) a white light had been established with a 15 mile range and that its main characteristics were 114" of eclipse and 8" of light. (7)

By 1862, the five parabolic reflectors, gas lamps, and rotating mechanism of the light were in bad conditions. A new recommendation was made to replace it with a "modern Fresnel lens." About fifteen years elapsed between the recommendation, the drawing of the new light plan, and final construction, which took place in 1876. (8)

The erection of the New San Juan Harbor Light coincided with the first

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studies made by the Government geared at establishing a comprehensive lighthouse system. One of these took place in 1856 when a light was considered for Cabo San Juan (east of San Juan Harbor at the city of Fajardo) to guide the growing trade between Puerto Rico and Saint Thomas "through the dangers of Culebra Passage." At the instance of the Central Lighthouse Commission Spain approved a grand plan in 1869. It called for the construction of 14 lighthouses: San Juan Harbor, Punta Bermeja, Punta Borinquen, Isla Caja de Muertos, Isla de la Culebra, Isla de la Mona, Isla del Desecheo, Cabezas de San Juan, Arecibo, Punta Higuero, Cabo Mala Pascua, Isla de Cabras, Punta Arenas, and Punta Este de Vieques. But as a consequence of colonial budgetary allocations --possibly as a result of the Cuban Ten Year War for Independence which began in 1868-- no monies were provided until 1875 when the studies for Cabezas de San Juan, Isla Caja de Muertos, Cabo Rojo, and Punta Borinquen were approved. (9)

Between 1876 and 1885 the construction of the project was plagued by budgetary shortcomings. Nevertheless, pressured by the planter class, the Public Works Office, and the Military Maritime Command, the Colonial Government with Spain's consent placed the seven most important lighthouses either in operation or under construction. These were: San Juan Harbor, Cabo or Cabezas de San Juan, Isla Culebrita, Punta Borinquen, Cabo Rojo, Isla Caja de Muertos, and Isla Cardona. Isla de la Mona was also considered as another possible site. Nine more locations were under consideration: Arecibo, Desecheo, Punta Higuero, Mayaguez, Guánica, Arroyo, Punta de la Tuna, Punta Mulas, and Puerto Ferro.

In 1890 that plan was revised and the lights re-ranked in construction priority: San Juan Harbor, Cabo San Juan, Cabo Rojo, Isla Culebrita, Isla Caja de Muertos, Cayo Cardona, Punta Borinquen, Isla de la Mona, Punta de la Tuna, Punta Higuero, Isla de Desecheo, Mayaguez, Guánica, Arroyo, Arecibo, Punta Mulas, and Puerto Ferro. (10)

From 1894 to 1895, 11 lighthouses were already functioning, one was being built, four were under study, and the last, Mayaguez, was in the first stages of study. (11) Isla Desecheo Light had been dropped as a site, but the evidence does not state any reason why.

To mark the magnitude and importance of the Spanish lighthouse plan and construction in Puerto Rico, the year 1885 is selected as a watershed. In that year, a preliminary inventory of lighthouses was made --based in a 1882 drawing-- and a new general site plan drawn including order of light, characteristics, and location (subsequently revised in 1888 and 1892). (12)

Also, a set of regulations for the instruction of lighthouse keepers (Reglamento para la Instrucción Teórico Práctica de los Alumnos de los Torreros de Faros) was written. Another set of regulations for the or-

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ganization and lighthouses' service (Reglamento Para la Organización y Servicio de los Torreros de Faros de la Isla de Puerto Rico) and a set of instructions for the better understanding and observance of the regulations for the operation of lighthouses (Instucciones para la mejor inteligencia y cumplimiento de lo dispuesto en el reglamento de faros) were established and implemented in Puerto Rico by the Overseas Ministry in Madrid (these were later revised in 1897). Finally, the lighthouse keeper uniforms were standardized. (13)

The 1885 preliminary inventory of lighthouses was apparently authorized by the Central Lighthouse Commission, but this is not clear since there are some differences between the 1888 inventory and the Commission's lighthouse site plan drawing of the same year. These are more obvious in the case of Punta Borinquen, Arecibo, Desecheo, Arroyo, Punta de la Tuna, and Puerto Ferro, where changes in both location and light type were introduced. These can be further identified if the previous plans are compared with the new 1890 plan as issued by the Modified Maritime Light System of the Central Lighthouse Commission. (14)

The changes in the master plan are indicative of a deep concern for the stabilization of a developing plan which, due to its own nature and arrangement, required a systematic and rational organization. The Colonial Government was not dealing with isolated, individual lights, but with an integral plan embracing the construction of major and minor overlapping units which required a constant follow-up.

\* In general terms, according to the original design, the major lights, as far as possible, were built first, followed by the minor or local lights. The intention was to create a light belt around the entire Island, where every major light was to be as important as any secondary one, regardless of order. All the plans --1882, 1885, 1888, and 1892-- demonstrate that the minor local lights served as intermediate links between the major ones. Thus, a ship sailing towards the Island, around it, or arriving at any trading post anywhere on the Puerto Rican shore, would always have a guiding light in its horizon. Puerto Rico, key to the Caribbean trade, could not be missed; it would sparkle at night.

The Spanish Colonial Government and the Overseas Ministry in Madrid were aware of Puerto Rico's excellent geo-politico strategic position. Since early 16th century the French, British, and Dutch launched attack upon attack on the Island. The last was the disastrous British assault of 1796. The Europeans wanted to extricate Puerto Rico from the Spanish Crown as a means of directing the Spanish Main fabulous wealth to their vaults, and, at the same time, weaken the Spanish Empire for Puerto Rico was the second largest and most fortified

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military stronghold in Hispanic America. On the other hand, Puerto Rico was ideally located at the center of the Caribbean's mouth with navigable sea passages into the heart of the Empire east and west of the Island. Whoever controlled the Island had free access to the Spanish treasures in America. Furthermore, Mother Nature enhanced the Island's position since prevailing winds and currents helped sea navigation entering the Caribbean through Puerto Rico. After Spain lost its colonies in America at the beginning of the 19th century, Cuba and Puerto Rico were retained as its sole possessions. Spain lost forever the gold, silver, precious stones, spices, lumber, hides, exotic goods which the Empire provided; but Cuba and Puerto Rico would provide a new wealth in the form of sugar, coffee, and tobacco. These became the staples of the century; one for which the standards of the last two hundred years, was a relatively peaceful one. The Century gave way to orderly trade and to increasing exchange of Caribbean goods for European and North American manufactured goods and commodities. This distribution became a cornerstone in the development of the new and dynamic economy: the capitalist economy of the 1800's. These elements led two Spanish officials working for the Lighthouse Commission in 1885 to state that the Mona Passage on the western front of the Island was "the natural trading course" of any European vessel going to South America and the "future Panama Canal." One year later, the Public Works Office Chief Engineer wrote the Colonial Governor on the proposed lighthouse plan and once more stressed the importance of the system in its Caribbean context. He argued that a well lighted and protected shoreline would attract to Puerto Rico "the new shipping lines which will be established after the so much aftersought construction of the Panama Canal is completed." In 1888, another report was filed at the Governor's Office by a member of the Commission. It reveals, not only the implications of the light system for the Caribbean but the overall international consequences of the design

One should take into account the routes followed by northern navigation into South America; from the Bahamas' channel, through north of the Islands of Cuba and Saint Domingue they enter the Sea of the Antilles; from there to Puerto Rico, and then Saint Thomas through the eastern Carmen Passage. The illumination of the north coast --from the Yucatan to the Gulf of

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Mexico, could and should be an issue of international interest. But more concretely, it is innegably convenient that all lighthouses built from Punta Maisi, northeast of Cuba, to the northern coast of Saint Domingue, Puerto Rico, and Saint Thomas, be not only clear, and well defined, but of the longest reach possible. Thus, the sailor who reaches these shores after an ocean passage, can, not only avoid danger, but correct his estimates, define his route, and mark his destiny, all through the most convenient channel of access to the Sea of the Antilles

His appreciation of current events was based on quantitative data accessible to him which allowed the conclusion that (15)

According to all statistic and geographic information, the number of European ships South America-bound which use the Mayaguez and Saint Domingue Channel /Mona Passage/ is larger than that which use other channels. And if the opening of the Panama Canal is added to the illumination of these coasts all the aforementioned navigation will follow that route, which is the shortest. It is thus, of utmost international and national interest to light this shore well and promptly.

The internal unity and integrity of the design was envisioned not only to serve local needs, but was interwoven with international interests. Evenmore, it took into consideration the construction of the Panama Canal which was finally built and opened to international navigation in 1914 approximately twenty years after the Island's lighthouse plan was conceived and executed. Undoubtly, the Puerto Rican plan was a masterpiece of design and construction. A similar kind of organization and planning is reflected in the "primer" for lighthouse keepers which, as mentioned, described the

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and set rules for the keeper's technical education. It established the moral qualities, public and private, of the keeper, and specified the nature and limits of the students' curriculum. They were to be instructed in geometry, mechanics, physics, meteorology, and basic engineering. The Instructions demanded of the students a "detailed knowledge" of all lighthouses on the Island in their "different parts and components and in their isolated and combined operation" since the lighthouse design was a working system whose parts played a key role only through interaction.

In other words, the students were taught not to deal with the peculiarities of an isolated object but with the complexities of an articulated master plan in operation. This was further established in the two sets of regulations concerning the organization, operation, and lighthouse service that spelled out, in 102 articles, everything concerning the upkeep of the lighthouse system: from polishing the floors of the keeper's dwellings to the type of nippers used for dirt removal in the lighthouse rotating device and the "chamois or buckskin with which the optics are to be polished."

The same richness of detail is also found in the standardization of the keepers' uniforms. If they were to be worn inside the lighthouse, they had to be of crude drill, with white buttons and white cap; otherwise, the uniforms would be of blue drill with golden buttons, black shoes and blue cap or white casque. The insignia was a band and two gold cords for lighthouse keeper 1st class; band and one gold cord for 2nd class keeper, etc.

The lighthouse system as such was not the only one with internal cohesion; it was a reflection of the Spanish "obsession" with systematic unity in organization, design, and construction. Structurally speaking, it may be argued --superficially though-- that 'after you've seen one lighthouse, you've seen them all.' Yet that would be an unimaginative judgement because, factually, the lighthouses of Puerto Rico are unique variations on a theme.

The basic design for each structure called for a brick, plaster, and stone rectangle internally divided into two equal parts (if the dwelling was for two keepers). Each part of the rectangle was segregated from the other, but had common elements responding to lighthouse service requirements and keepers' domestic needs.

The existing original lighthouses' drawings used to build the actual structures demonstrate this point. Service areas were clearly marked--storage room, engineer's quarters, etc.--and

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did not offer major interpretative problems. The domestic spaces, though, present a remarkable hidden simplicity which fundamental characteristic was a free flow of movement which kept in mind the need for habitable spaces and privacy.

The living quarters were determined by structural needs and primary functions, but were to be ruled by their inhabitants and their life-style. The keeper--one or two, according to the light order--and his family, had liveable private quarters of their own within a same lighthouse which did not interfere with any other fellow keepers'. In other words, each quarter was a home with private living room, bedrooms, kitchen-dining area, bathroom, and a rear exit to a vegetable garden.

The structure did not allow for any communication between keepers' dwellings except at a common space, the vestibule or welcoming hall. This common social space, so to speak, lead to a second common space, the tower, the core-object of the structure, which regardless of position--internal, external, or partially attached--always connected to the living quarters--a reminder of the keepers' common responsibility. Finally, these had another point of social contact, the well or cistern which provided water to the inhabitants of the lighthouse.

The lighthouse system's unity is further emphasized by the lighthouse locations. As a rule, they were established in isolated areas, on high grounds above sea level, with a commanding view of the horizon. These lighthouses, standing alone atop high promontories or naked cliffs, against a background of dark green mountains or ridges, were an example of structural functionalism and a rare counterpoint in scenic dramatism.

The light mechanism provided another element of cohesion: lenses and optic systems, lantern and lantern fixtures, illuminating apparatus and lampburners; and sometimes iron stairs, rails, balusters, and decorative elements were all of French design and manufacture. Available evidence indicates that three Paris-based French firms offered and provided designs to the Spanish Colonial Government: L. Sautter, Lemonier, & Cie., Henry-Lepaute, and Barbier et Fenestre.

The 1885 plan--with or without modifications--fulfilled the 1861 five-point instructions issued to the sea shore inspectors in terms of unity of function and design, construction, and artistic concepts--neo-classic style--which the Spanish Colonial lighthouse system in Puerto Rico subsequently embodied. Moreover, the plan provided a solution to the maritime communication and transportation problems raised by the 1840 port survey of Puerto Rico. The plan was so remarkably well executed that it was later absorbed without modi-

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fications into the United States Lighthouse Service after the 1898 Spanish-American War. And, though transformed by today's needs, the basic system is still in operation, and the structures still stand.

Thus, one hundred years after their construction, the Lighthouses of Puerto Rico--even those that have suffered the effects of vandalism or natural decay and ruin--are extraordinary examples of historical continuity, unity and cohesion. They came into being as a result of an immediate economic necessity. The solution could have been a temporary one. The Spanish Colonial Government chose instead to build a system which for its utilitarian value, proportion, architectural value, and environmental locations, transcended its time and projected itself into the realms of posterity.

\* \* \*

The boundaries for all United States Coast Guard properties in Puerto Rico hereby nominated were chosen firstly on the scientific selection of the sites as originally carried out by the Spanish Colonial Government, and secondly, on the United States Coast proprietary rights--awarded through Presidential Proclamation on 1903--as a result of Puerto Rico's United States possession status after the Spanish American War of 1898.

These nominations, as far as the documentary and surveying evidence goes, attempt to honor the boundary lines' selection of 1903, surveyed in 1904 and or 1905.

Historical continuity and its corresponding associations with past and present time and use, are uppermost elements in the boundary selection. Other elements such as site integrity, natural beauty of the immediate environments, their subsequent dramatic effects, and the necessary surrounding space for enhancing the imposing effects of the site's architectural values are also considered as substantive components for boundary demarcations.

1

Archivo General de Puerto Rico (AGPR), Obras Públicas: Aguas y Canalizaciones, legajos 239-249, expedientes 22, 23, 24, 41, 470, 473, 713, 715, 717, 720, 723, 1489, 1753, and 1768. Also AGPR, Obras Públicas: Caminos Vecinales, legajos 40 and 68, expedientes 39, 155, 172, 174, 176, 205, 579, 1423, and 1459.

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- 2  
AGPR, Obras Públicas: Puentes y Muelles, legajo 87, expediente 2.
- 3  
AGPR, Obras Públicas: Ferrocarriles, general.
- 4  
AGPR, Obras Públicas: Carreteras y Caminos, general.
- 5  
AGPR, Obras Públicas: Puertos y Muelles, legajo 228.
- 6  
Ibid.
- 7  
National Archives, Washington, D.C. (NA), Record Group (RG) 26, box 3.
- 8  
Archivo Histórico Nacional, Madrid, Spain (AHN), Ultramar: Puerto Rico, legajo 409, expedientes 2-7.
- 9  
AHN, Ultramar: Puerto Rico, legajo 409, expediente 12. NA, RG 26, boxes 3 and 4.
- 10  
NA, RG 26, box 3.
- 11  
AGPR, Obras Públicas: Puertos y Muelles, legajo 228. NA, RG 26, box 4.
- 12  
v. attached 1882, 1885, 1888, and 1892 copies of drawings. Color slides are included from 1888 and 1892 drawings. The 1882 plan is located in AHN, Ultramar: Puerto Rico, legajo 410, expediente 7.  
v. attached 1885 and 1890 Lighthouse Inventory charts.
- 13  
AGPR, Obras Públicas: Puertos y Muelles, legajo 228. NA, RG 26, box 4.
- 14  
AGPR, Obras Públicas: Puertos y Muelles, legajo 228.

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15

NA, RG 26, box 4.

**8 SIGNIFICANCE** (v. also individual entries)

PERIOD		AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW				
<input type="checkbox"/> PREHISTORIC	<input type="checkbox"/> ARCHEOLOGY-PREHISTORIC	<input type="checkbox"/> COMMUNITY PLANNING	<input type="checkbox"/> LANDSCAPE ARCHITECTURE	<input type="checkbox"/> RELIGION		
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> ARCHEOLOGY-HISTORIC	<input type="checkbox"/> CONSERVATION	<input type="checkbox"/> LAW	<input type="checkbox"/> SCIENCE		
<input type="checkbox"/> 1500-1599	<input type="checkbox"/> AGRICULTURE	<input type="checkbox"/> ECONOMICS	<input type="checkbox"/> LITERATURE	<input type="checkbox"/> SCULPTURE		
<input type="checkbox"/> 1600-1699	<input checked="" type="checkbox"/> ARCHITECTURE	<input type="checkbox"/> EDUCATION	<input type="checkbox"/> MILITARY	<input type="checkbox"/> SOCIAL/HUMANITARIAN		
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> ART	<input checked="" type="checkbox"/> ENGINEERING	<input type="checkbox"/> MUSIC	<input type="checkbox"/> THEATER		
<input checked="" type="checkbox"/> 1800-1899	<input type="checkbox"/> COMMERCE	<input type="checkbox"/> EXPLORATION/SETTLEMENT	<input type="checkbox"/> PHILOSOPHY	<input checked="" type="checkbox"/> TRANSPORTATION		
<input checked="" type="checkbox"/> 1900-	<input checked="" type="checkbox"/> COMMUNICATIONS	<input type="checkbox"/> INDUSTRY	<input type="checkbox"/> POLITICS/GOVERNMENT	<input type="checkbox"/> OTHER (SPECIFY)		
		<input type="checkbox"/> INVENTION				History

SPECIFIC DATES      1846-1979      BUILDER/ARCHITECT

STATEMENT OF SIGNIFICANCE

**GENERAL SIGNIFICANCE:** The Lighthouse System of Puerto Rico, 1846-1979, which is still in operation, is composed of fifteen major and minor structures built during the last quarter of the 19th century. It was a rational engineering and architectural answer to the absence of reliable protective and guiding devices for sea transportation, and to patchy means of local communication. The system, as it stands today, is intimately related to the historic development of Puerto Rico since it successfully coped with safeguarding the distribution and conveyance of raw materials produced in the Island which made it, during the course of more than hundred fifty years, one of the world's leading exporter of sugar, molasses, rum, and coffee, and to a lesser degree, tobacco. In general, the system protected the international exchange trade of those raw materials for foreign manufactured goods and commodities. Furthermore, since Puerto Rico is located at the crossroads between the Atlantic Ocean and the Caribbean Sea, and is an accesible key to the Gulf of México, Central America (the Panama Canal), and South America, the system offered unequal protection to major 19th and 20th centurie Euro-American maritime routes and shipping companies. The light system also served as the completing element in the local development of communications which included national and international telegraph, roads, and railroads.

The system's rationality and uniqueness is predicated in the uniformity and unity of the structures in terms of location, architectural planning (which reflects the current taste for Spanish Colonial neo-classicism), and its engineering construction. Finally, unity was carried out in the selection of lantern fixtures, optics, and fuel for the lights. Nevertheless, within an overall arrangement of major and minor lighthouses, each structure was allowed its own adaptation to prevailing circumstances, geographical locations, terrain, environmental conditions, and order of light and light characteristics.

